

# The letltxmacro package

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## Abstract

$\TeX$ 's `\let` assignment does not work for  $\LaTeX$  macros with optional arguments or for macros that are defined as robust macros by `\DeclareRobustCommand`. This package defines `\LetLtxMacro` that also takes care of the involved internal macros.

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## 1 Documentation

If someone wants to redefine a macro with using the old meaning, then one method is  $\TeX$ 's command `\let`:

```

\newcommand{\Macro}{\typeout{Test Macro}}
\let\SavedMacro=\Macro
\renewcommand{\Macro}{%
  \typeout{Begin}%
  \SavedMacro
  \typeout{End}%
}

```

However, this method fails, if `\Macro` is defined by `\DeclareRobustCommand` and/or has an optional argument. In both cases L<sup>A</sup>T<sub>E</sub>X defines an additional internal macro that is forgotten in the simple `\let` assignment of the example above.

`\LetLtxMacro {⟨new macro⟩} {⟨old macro⟩}`

Macro `\LetLtxMacro` behaves similar to T<sub>E</sub>X's `\let` assignment, but it takes care of macros that are defined by `\DeclareRobustCommand` and/or have optional arguments. Example:

```

\DeclareRobustCommand{\Macro}[1][default]{...}
\LetLtxMacro{\SavedMacro}{\Macro}

```

Then macro `\SavedMacro` only uses internal macro names that are derived from `\SavedMacro`'s macro name. Macro `\Macro` can now be redefined without affecting `\SavedMacro`.

`\GlobalLetLtxMacro {⟨new macro⟩} {⟨old macro⟩}`

Like `\LetLtxMacro`, but the `⟨new macro⟩` is defined globally. Since version 2010/09/02 v1.4.

## 1.1 Supported macro definition commands

<code>\newcommand</code> , <code>\renewcommand</code>	latex/base
<code>\newenvironment</code> , <code>\renewenvironment</code>	latex/base
<code>\DeclareRobustCommand</code>	latex/base
<code>\newrobustcmd</code> , <code>\renewrobustcmd</code>	etoolbox
<code>\robustify</code>	etoolbox 2008/06/22 v1.6

## 2 Implementation

### 2.1 Show cases

#### 2.1.1 letltxmacro-showcases.tex

```

1 (*showcases)
2 \NeedsTeXFormat{LaTeX2e}
3 \makeatletter

```

`\Line` The result is displayed by macro `\Line`. The percent symbol at line start allows easy grepping and inserting into the DTX file.

```

4 \newcommand*{\Line}[1]{%
5   \typeout{\@percentchar#1}%
6 }

7 \newcommand*{\ShowCmdName}[1]{%
8   \@ifundefined{#1}{}{%
9     \Line{%
10      \space\space(\expandafter\string\csname#1\endcsname) = %
11      (\expandafter\meaning\csname#1\endcsname)%
12    }%

```

```

13 }%
14 }
15 \newcommand*\ShowCmds}[1]{%
16   \ShowCmdName{#1}%
17   \ShowCmdName{#1 }%
18   \ShowCmdName{\#1}%
19   \ShowCmdName{\#1 }%
20 }
21 \let\\@backslashchar

```

\ShowDef

```

22 \newcommand*\ShowDef}[2]{%
23   \begingroup
24     \Line{}%
25     \newcommand*\DefString{#2}%
26     \@onelevel@sanitize\DefString
27     \Line{\DefString}%
28     #2%
29     \ShowCmds{#1}%
30   \endgroup
31 }

32 \typeout{}
33 \Line{* LaTeX definitions:}
34 \ShowDef{cmd}{%
35   \newcommand{\cmd}[2][default]{}%
36 }
37 \ShowDef{cmd}{%
38   \DeclareRobustCommand{\cmd}{}%
39 }
40 \ShowDef{cmd}{%
41   \DeclareRobustCommand{\cmd}[2][default]{}%
42 }
43 \typeout{}

```

The minimal version of package etoolbox is 2008/06/12 v1.6a because it fixes \robustify.

```

44 \RequirePackage{etoolbox}[2008/06/12]%
45 \Line{}
46 \Line{* etoolbox's robust definitions:}
47 \ShowDef{cmd}{%
48   \newrobustcmd{\cmd}{}%
49 }
50 \ShowDef{cmd}{%
51   \newrobustcmd{\cmd}[2][default]{}%
52 }
53 \Line{}
54 \Line{* etoolbox's \string\robustify:}
55 \ShowDef{cmd}{%
56   \newcommand{\cmd}[2][default]{} %
57   \robustify{\cmd}%
58 }
59 \ShowDef{cmd}{%
60   \DeclareRobustCommand{\cmd}{} %
61   \robustify{\cmd}%
62 }
63 \ShowDef{cmd}{%
64   \DeclareRobustCommand{\cmd}[2][default]{} %
65   \robustify{\cmd}%
66 }
67 \typeout{}
68 \@@end
69 </showcases>

```

## 2.1.2 Result

\* LaTeX definitions:

```
\newcommand {\cmd }[2][default]{  
  (\cmd) = (macro:->\@protected@testopt \cmd \cmd {default})  
  (\\cmd) = (\long macro:[#1]#2->)  
  
\DeclareRobustCommand {\cmd }{}  
  (\cmd) = (macro:->\protect \cmd_ )  
  (\cmd_) = (\long macro:->)  
  
\DeclareRobustCommand {\cmd }[2][default]{  
  (\cmd) = (macro:->\protect \cmd_ )  
  (\cmd_) = (macro:->\@protected@testopt \cmd_ \cmd_ {default})  
  (\\cmd_) = (\long macro:[#1]#2->)
```

\* etoolbox's robust definitions:

```
\newrobustcmd {\cmd }{}  
  (\cmd) = (\protected\long macro:->)  
  
\newrobustcmd {\cmd }[2][default]{  
  (\cmd) = (\protected macro:->\@testopt \cmd {default})  
  (\\cmd) = (\long macro:[#1]#2->)
```

\* etoolbox's \robustify:

```
\newcommand {\cmd }[2][default]{ \robustify {\cmd }  
  (\cmd) = (\protected macro:->\@protected@testopt \cmd \cmd {default})  
  (\\cmd) = (\long macro:[#1]#2->)  
  
\DeclareRobustCommand {\cmd }{} \robustify {\cmd }  
  (\cmd) = (\protected macro:->)  
  
\DeclareRobustCommand {\cmd }[2][default]{ \robustify {\cmd }  
  (\cmd) = (\protected macro:->\@protected@testopt \cmd_ \cmd_ {default})  
  (\cmd_) = (macro:->\@protected@testopt \cmd_ \cmd_ {default})  
  (\\cmd_) = (\long macro:[#1]#2->)
```

## 2.2 Package

70 (\*package)

### 2.2.1 Catcodes and identification

```
71 \begingroup\catcode61\catcode48\catcode32=10\relax%  
72 \catcode13=5 % ^M  
73 \endlinechar=13 %  
74 \catcode123=1 % {  
75 \catcode125=2 % }  
76 \catcode64=11 % @  
77 \def\x{\endgroup  
78 \expandafter\edef\csname llm@AtEnd\endcsname{%  
79 \endlinechar=\the\endlinechar\relax  
80 \catcode13=\the\catcode13\relax  
81 \catcode32=\the\catcode32\relax  
82 \catcode35=\the\catcode35\relax  
83 \catcode61=\the\catcode61\relax  
84 \catcode64=\the\catcode64\relax  
85 \catcode123=\the\catcode123\relax  
86 \catcode125=\the\catcode125\relax  
87 }%  
88 }%
```

```

89 \x\catcode61\catcode48\catcode32=10\relax%
90 \catcode13=5 % ^~M
91 \endlinechar=13 %
92 \catcode35=6 % #
93 \catcode64=11 % @
94 \catcode123=1 % {
95 \catcode125=2 % }
96 \def\TMP@EnsureCode#1#2{%
97   \edef\llm@AtEnd{%
98     \llm@AtEnd
99     \catcode#1=\the\catcode#1\relax
100  }%
101  \catcode#1=#2\relax
102 }
103 \TMP@EnsureCode{40}{12}% (
104 \TMP@EnsureCode{41}{12}% )
105 \TMP@EnsureCode{42}{12}% *
106 \TMP@EnsureCode{45}{12}% -
107 \TMP@EnsureCode{46}{12}% .
108 \TMP@EnsureCode{47}{12}% /
109 \TMP@EnsureCode{58}{12}% :
110 \TMP@EnsureCode{62}{12}% >
111 \TMP@EnsureCode{91}{12}% [
112 \TMP@EnsureCode{93}{12}% ]
113 \edef\llm@AtEnd{%
114   \llm@AtEnd
115   \escapechar\the\escapechar\relax
116   \noexpand\endinput
117 }
118 \escapechar=92 % ‘\

Package identification.
119 \NeedsTeXFormat{LaTeX2e}
120 \ProvidesPackage{letltxmacro}%
121 [2010/09/02 v1.4 Let assignment for LaTeX macros (HO)]

```

## 2.2.2 Main macros

`\LetLtxMacro`

```

122 \newcommand*{\LetLtxMacro}{%
123   \llm@ModeLetLtxMacro}%
124 }

```

`\GlobalLetLtxMacro`

```

125 \newcommand*{\GlobalLetLtxMacro}{%
126   \llm@ModeLetLtxMacro\global
127 }

```

`\llm@ModeLetLtxMacro`

```

128 \newcommand*{\llm@ModeLetLtxMacro}[3]{%
129   \edef\llm@escapechar{\the\escapechar}%
130   \escapechar=-1 %
131   \edef\reserved@a{%
132     \noexpand\protect
133     \expandafter\noexpand
134     \csname\string#3 \endcsname
135   }%
136   \ifx\reserved@a#3\relax
137     #1\edef#2{%
138       \noexpand\protect
139       \expandafter\noexpand
140       \csname\string#2 \endcsname
141     }%

```

```

142 #1\expandafter\let
143 \csname\string#2 \expandafter\endcsname
144 \csname\string#3 \endcsname
145 \expandafter\llm@LetLtxMacro
146 \csname\string#2 \expandafter\endcsname
147 \csname\string#3 \endcsname{#1}%
148 \else
149 \llm@LetLtxMacro{#2}{#3}{#1}%
150 \fi
151 \escapechar=\llm@escapechar\relax
152 }

```

\llm@LetLtxMacro

```

153 \def\llm@LetLtxMacro#1#2#3{%
154 \escapechar=92 %
155 \expandafter\llm@CheckParams\meaning#2:->\@nil{%
156 \begingroup
157 \def\@protected@testopt{%
158 \expandafter\@testopt@gobble
159 }%
160 \def\@testopt##1##2{%
161 \toks@={##2}%
162 }%
163 \let\llm@testopt\@empty
164 \edef\x{%
165 \noexpand\@protected@testopt
166 \noexpand#2%
167 \expandafter\noexpand\csname\string#2\endcsname
168 }%
169 \expandafter\expandafter\expandafter\def
170 \expandafter\expandafter\expandafter\y
171 \expandafter\expandafter\expandafter{%
172 \expandafter\llm@CarThree#2}{-}\llm@nil
173 }%
174 \ifx\x\y
175 #2%
176 \def\llm@testopt{%
177 \noexpand\@protected@testopt
178 \noexpand#1%
179 }%
180 \else
181 \edef\x{%
182 \noexpand\@testopt
183 \expandafter\noexpand
184 \csname\string#2\endcsname
185 }%
186 \expandafter\expandafter\expandafter\def
187 \expandafter\expandafter\expandafter\y
188 \expandafter\expandafter\expandafter{%
189 \expandafter\llm@CarTwo#2}{-}\llm@nil
190 }%
191 \ifx\x\y
192 #2%
193 \def\llm@testopt{%
194 \noexpand\@testopt
195 }%
196 \fi
197 \fi
198 \ifx\llm@testopt\@empty
199 \else
200 \llm@protected\xdef\llm@GlobalTemp{%
201 \llm@testopt
202 \expandafter\noexpand

```

```

203         \csname\string#1\endcsname
204         {\the\toks@}%
205     }%
206     \fi
207     \expandafter\endgroup\ifx\llm@testopt\@empty
208     #3\let#1=#2\relax
209     \else
210     #3\let#1=\llm@GlobalTemp
211     #3\expandafter\let
212     \csname\string#1\expandafter\endcsname
213     \csname\string#2\endcsname
214     \fi
215 }{%
216     #3\let#1=#2\relax
217 }%
218 }

```

\llm@CheckParams

```

219 \def\llm@CheckParams#1:->#2\@nil{%
220     \begingroup
221     \def\x{#1}%
222     \ifx\x\llm@macro
223     \endgroup
224     \def\llm@protected{}%
225     \expandafter\@firstoftwo
226     \else
227     \ifx\x\llm@protectedmacro
228     \endgroup
229     \def\llm@protected{\protected}%
230     \expandafter\expandafter\expandafter\@firstoftwo
231     \else
232     \endgroup
233     \expandafter\expandafter\expandafter\@secondoftwo
234     \fi
235     \fi
236 }

```

\llm@macro

```

237 \def\llm@macro{macro}
238 \@onelevel@sanitize\llm@macro

```

\llm@protectedmacro

```

239 \def\llm@protectedmacro{\protected macro}
240 \@onelevel@sanitize\llm@protectedmacro

```

\llm@CarThree

```

241 \def\llm@CarThree#1#2#3#4\llm@nil{#1#2#3}%

```

\llm@CarTwo

```

242 \def\llm@CarTwo#1#2#3\llm@nil{#1#2}%

```

```

243 \llm@AtEnd%

```

```

244 \endpackage

```

## 3 Test

### 3.1 Catcode checks for loading

```

245 \test1

```

```

246 \NeedsTeXFormat{LaTeX2e}

```

```

247 \documentclass{minimal}
248 \makeatletter
249 \def\RestoreCatcodes{}
250 \count@=0 %
251 \loop
252   \edef\RestoreCatcodes{%
253     \RestoreCatcodes
254     \catcode\the\count@=\the\catcode\count@\relax
255   }%
256 \ifnum\count@<255 %
257   \advance\count@\@ne
258 \repeat
259
260 \def\RangeCatcodeInvalid#1#2{%
261   \count@=#1\relax
262   \loop
263     \catcode\count@=15 %
264     \ifnum\count@<#2\relax
265       \advance\count@\@ne
266     \repeat
267 }
268 \def\Test{%
269   \RangeCatcodeInvalid{0}{47}%
270   \RangeCatcodeInvalid{58}{64}%
271   \RangeCatcodeInvalid{91}{96}%
272   \RangeCatcodeInvalid{123}{127}%
273   \catcode'\@=12 %
274   \catcode'\=0 %
275   \catcode'\{=1 %
276   \catcode'\}=2 %
277   \catcode'\#=6 %
278   \catcode'\ [=12 %
279   \catcode'\]=12 %
280   \catcode'\%=14 %
281   \catcode'\ =10 %
282   \catcode13=5 %
283   \RequirePackage{letltxmacro}[2010/09/02]\relax
284   \RestoreCatcodes
285 }
286 \Test
287 \csname @@end\endcsname
288 \end
289 </test1>

```

### 3.2 Package tests

```

290 (*test2)
291 \NeedsTeXFormat{LaTeX2e}
292 \nofiles
293 \documentclass{minimal}
294
295 \usepackage{letltxmacro}[2010/09/02]
296
297 \usepackage{qstest}
298 \IncludeTests{*}
299 \LogTests{log}{*}{*}
300
301 \makeatletter
302
303 \def\TestDef#1{%
304   \begingroup
305     \@makeother\%
306     \@makeother\ %

```



```

307     \expandafter\@TestDef\csname #1\endcsname
308 }
309 \def\@TestDef#1#2{%
310     \edef\a{\expandafter\strip@prefix\meaning#1}%
311     \edef\b{\detokenize{#2}}%
312     \ifx\a\b
313     \else
314         \typeout{1 [\a]}%
315         \typeout{2 [\b]}%
316     \fi
317 \endgroup
318 \Expect*{\expandafter\strip@prefix\meaning#1}*{\detokenize{#2}}%
319 }
320 \def\TestEquals#1#2{%
321     \Expect*{%
322         \expandafter\ifx\csname#1\expandafter\endcsname
323             \csname#2\endcsname
324         equals%
325     \else
326         wrong%
327     \fi
328 }{equals}%
329 }
330 \def\SaveA{%
331     \let\SavedA\TestA
332     \expandafter\let\csname\string\SavedA\expandafter\endcsname
333         \csname\string\TestA\endcsname
334     \expandafter\let\csname SavedA \expandafter\endcsname
335         \csname TestA \endcsname
336 }
337 \def\CheckA{%
338     \TestEquals{SavedA}{TestA}%
339     \TestEquals{\string\SavedA}{\string\TestA}%
340     \TestEquals{SavedA }{TestA }%
341 }
342
343 \begin{qstest}{robust}{robust}
344     \begingroup
345         \DeclareRobustCommand*{\TestA}{Test}%
346         \SaveA
347         \TestDef{TestA}{\protect \TestA }%
348         \CheckA
349         \DeclareRobustCommand{\TestA}{Test}%
350         \SaveA
351         \TestDef{TestA}{\protect \TestA }%
352         \LetLtxMacro\TestB\TestA
353         \TestDef{TestB}{\protect \TestB }%
354         \TestEquals{TestB }{TestA }%
355         \CheckA
356         \GlobalLetLtxMacro\TestC\TestA
357         \CheckA
358     \endgroup
359     \TestDef{TestC}{\protect \TestC }%
360     \DeclareRobustCommand{\TestA}{Test}%
361     \TestEquals{TestC }{TestA }%
362 \end{qstest}
363
364 \begin{qstest}{default}{default}
365     \begingroup
366         \newcommand{\TestA}[1][\relax default \empty]{TestA #1}%
367         \SaveA
368         \TestDef

```

```

369   {TestA}{\@protected@testopt \TestA \TestA {\relax default \empty }}%
370   \LetLtxMacro\TestB\TestA
371   \TestDef
372   {TestB}{\@protected@testopt \TestB \TestB {\relax default \empty }}%
373   \CheckA
374   \TestEquals{\string\TestB}{\string\TestA}%
375   \GlobalLetLtxMacro\TestC\TestA
376   \CheckA
377 \endgroup
378 \TestDef
379 {TestC}{\@protected@testopt \TestC \TestC {\relax default \empty }}%
380 \newcommand{\TestA}[1][\relax default \empty]{TestA #1}%
381 \TestEquals{\string\TestC}{\string\TestA}%
382 \end{qstest}
383
384 \begin{qstest}{robustdefault}{robustdefault}
385   \begingroup
386     \DeclareRobustCommand{\TestA}[1][\default]{TestA}%
387     \SaveA
388     \LetLtxMacro\TestB\TestA
389     \TestDef{TestB}{\protect \TestB }%
390     \TestDef{TestB }{\@protected@testopt \TestB \TestB {\default }}%
391     \CheckA
392     \GlobalLetLtxMacro\TestC\TestA
393     \CheckA
394   \endgroup
395   \TestDef{TestC}{\protect \TestC }%
396   \TestDef{TestC }{\@protected@testopt \TestC \TestC {\default }}%
397 \end{qstest}
398
399 \begin{qstest}{plain}{plain}
400   \LetLtxMacro\NewRelax\relax
401   \Expect*{\meaning\relax}*{\string\relax}%
402   \Expect*{\meaning\NewRelax}*{\string\relax}%
403   \LetLtxMacro\NewHbox\hbox
404   \Expect*{\meaning\hbox}*{\string\hbox}%
405   \Expect*{\meaning\NewHbox}*{\string\hbox}%
406   \LetLtxMacro\NewEmpty\empty
407   \Expect*{\meaning\empty}{macro:->}%
408   \Expect*{\meaning\NewEmpty}{macro:->}%
409   \def\TestA{\iffalse}%
410   \LetLtxMacro\TestB\TestA
411   \TestDef{TestB}{\iffalse }%
412   \TestEquals{TestA}{TestB}%
413 \end{qstest}
414 \usepackage{etoolbox}[2008/06/22]
415
416 \begin{qstest}{oldnewrobustcmd}{oldnewrobustcmd}
417   \begingroup
418     \protected\edef\TestA{%
419       \noexpand\@protected@testopt
420       \noexpand\TestA
421       \expandafter\noexpand\csname\string\TestA\endcsname
422       {\noexpand\default}%
423     }%
424     \expandafter\protected\expandafter
425     \def\csname\string\TestA\endcsname{TestA}%
426     \SaveA
427     \LetLtxMacro\TestB\TestA
428     \TestDef{TestB}{\@protected@testopt \TestB \TestB {\default }}%
429     \protected\edef\TestC{%
430       \noexpand\@protected@testopt

```

```

431     \noexpand\TestB
432     \expandafter\noexpand\csname\string\TestB\endcsname
433     {\noexpand\default}%
434   }%
435   \TestEquals{TestB}{TestC}%
436   \CheckA
437   \GlobalLetLtxMacro\TestD\TestA
438   \CheckA
439 \endgroup
440 \TestDef{TestD}{\@protected@testopt \TestD \TestD {\default }}%
441 \protected\edef\TestC{%
442   \noexpand\@protected@testopt
443   \noexpand\TestD
444   \expandafter\noexpand\csname\string\TestD\endcsname
445   {\noexpand\default}%
446 }%
447 \TestEquals{TestD}{TestC}%
448 \end{qstest}
449
450 \begin{qstest}{newrobustcmd}{newrobustcmd}
451   \begingroup
452   \newrobustcmd{\TestA}[1][\default]{TestA}%
453   \SaveA
454   \LetLtxMacro\TestB\TestA
455   \TestDef{TestB}{\@testopt \TestB {\default }}%
456   \protected\edef\TestC{%
457     \noexpand\@testopt
458     \expandafter\noexpand\csname\string\TestB\endcsname
459     {\noexpand\default}%
460   }%
461   \TestEquals{TestB}{TestC}%
462   \CheckA
463   \GlobalLetLtxMacro\TestD\TestA
464   \CheckA
465 \endgroup
466 \TestDef{TestD}{\@testopt \TestD {\default }}%
467 \protected\edef\TestC{%
468   \noexpand\@testopt
469   \expandafter\noexpand\csname\string\TestD\endcsname
470   {\noexpand\default}%
471 }%
472 \TestEquals{TestD}{TestC}%
473 \end{qstest}
474
475 \begin{qstest}{robustifyopt}{robustifyopt}
476   \newcommand{\TestA}[2][\default]{}%
477   \TestDef{TestA}{\@protected@testopt \TestA \TestA {\default }}%
478   \robustify\TestA
479   \TestDef{TestA}{\@protected@testopt \TestA \TestA {\default }}%
480   \protected\edef\TestC{%
481     \noexpand\@protected@testopt
482     \noexpand\TestA
483     \expandafter\noexpand\csname\string\TestA\endcsname
484     {\noexpand\default}%
485   }%
486   \TestEquals{TestA}{TestC}%
487   \SaveA
488   \LetLtxMacro\TestB\TestA
489   \TestDef{TestB}{\@protected@testopt \TestB \TestB {\default }}%
490   \protected\edef\TestC{%
491     \noexpand\@protected@testopt
492     \noexpand\TestB

```

```

493   \expandafter\noexpand\csname\string\TestB\endcsname
494   {\noexpand\default}%
495   }%
496   \TestEquals{TestB}{TestC}%
497   \CheckA
498 \end{qstest}
499
500 \begin{qstest}{robustifydeclare}{robustifydeclare}
501   \DeclareRobustCommand\TestA{\iffalse}%
502   \robustify\TestA
503   \SaveA
504   \LetLtxMacro\TestB\TestA
505   \TestDef{TestB}{\iffalse }%
506   % before etoolbox 2008/06/22: \protected\long\def
507   % since etoolbox 2008/06/22: \protected\def
508   \protected\def\TestC{\iffalse}%
509   \TestEquals{TestB}{TestC}%
510   \CheckA
511 \end{qstest}
512
513 \begin{qstest}{robustifydeclarelong}{robustifydeclarelong}
514   \DeclareRobustCommand\TestA[1]{\iffalse}%
515   \robustify\TestA
516   \SaveA
517   \LetLtxMacro\TestB\TestA
518   \TestDef{TestB}{\iffalse }%
519   % before etoolbox 2008/06/22: \protected\long\def
520   % since etoolbox 2008/06/22: \protected\def
521   \protected\long\def\TestC#1{\iffalse}%
522   \TestEquals{TestB}{TestC}%
523   \CheckA
524 \end{qstest}
525 \csname @@end\endcsname
526 </test2>

```

## 4 Installation

### 4.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

[CTAN:macros/latex/contrib/oberdiek/letltxmacro.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/letltxmacro.pdf](#) Documentation.

**Bundle.** All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](#)

*TDS* refers to the standard “A Directory Structure for  $\TeX$  Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

### 4.2 Bundle installation

**Unpacking.** Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

<sup>1</sup><http://ftp.ctan.org/tex-archive/>

**Script installation.** Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package `attachfile2` comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

### 4.3 Package installation

**Unpacking.** The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain `TEX`:

```
tex letltxmacro.dtx
```

**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

```
letltxmacro.sty      → tex/latex/oberdiek/letltxmacro.sty
letltxmacro.pdf      → doc/latex/oberdiek/letltxmacro.pdf
letltxmacro-showcases.tex → doc/latex/oberdiek/letltxmacro-showcases.tex
test/letltxmacro-test1.tex → doc/latex/oberdiek/test/letltxmacro-test1.tex
test/letltxmacro-test2.tex → doc/latex/oberdiek/test/letltxmacro-test2.tex
letltxmacro.dtx      → source/latex/oberdiek/letltxmacro.dtx
```

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

### 4.4 Refresh file name databases

If your `TEX` distribution (te`TEX`, mik`TEX`, ...) relies on file name databases, you must refresh these. For example, te`TEX` users run `texhash` or `mktextlsr`.

### 4.5 Some details for the interested

**Attached source.** The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk letltxmacro.pdf unpack_files output .
```

**Unpacking with L<sup>A</sup>T<sub>E</sub>X.** The `.dtx` chooses its action depending on the format:

**plain T<sub>E</sub>X:** Run `docstrip` and extract the files.

**L<sup>A</sup>T<sub>E</sub>X:** Generate the documentation.

If you insist on using L<sup>A</sup>T<sub>E</sub>X for `docstrip` (really, `docstrip` does not need L<sup>A</sup>T<sub>E</sub>X), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{letltxmacro.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

**Generating the documentation.** You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfLATEX:

```
pdflatex letltxmacro.dtx
makeindex -s gind.ist letltxmacro.idx
pdflatex letltxmacro.dtx
makeindex -s gind.ist letltxmacro.idx
pdflatex letltxmacro.dtx
```

## 5 History

[2008/06/09 v1.0]

- First version.

[2008/06/12 v1.1]

- Support for etoolbox’s `\newrobustcmd` added.

[2008/06/13 v1.2]

- Support for etoolbox’s `\robustify` added.

[2008/06/24 v1.3]

- Test file adapted for etoolbox 2008/06/22 v1.6.

[2010/09/02 v1.4]

- `\GlobalLetLtxMacro` added.

## 6 Index

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